

1 **ABSTRACT OF THE DISCLOSURE**

2 A quadrature oscillator capable of lowering phase noise and power
3 dissipation is disclosed. The oscillator circuit includes two symmetrical
4 oscillators (11) (12) formed by cross-coupled transistor pairs with positive
5 feedback structure to produce negative resistance, two LC circuits (13) (14)
6 coupled to the above oscillators (11) (12) to produce positive resistance
7 offsetting the negative resistance through the oscillators (11) (12), and two
8 coupling circuits (15) (16) coupled to the oscillators (11) (12) to produce
9 quadrature phase outputs, wherein, the transistor pairs in each coupling circuit
10 (15) are respectively connected to the corresponding transistor pairs in the two
11 oscillators (11) (12), to prevent the operating point of the oscillator transistors
12 from shifting toward the linear region.